

# WDV-Scan pro 1.1

## User's manual

01.12.2002

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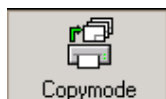
## General

This Software was developed as user interface for scanners of the Contex type series. By means of said program large-format documents can be copied or acquired as raster files. WDV-Scan-Plus possesses functions which support a comfortable scan process.

Utilizing the possibilities offered by the scanner hardware and the performance of such software, optimum results can be obtained in the acquisition of drawings and diagrams.

The scanning process may be carried out in various modes of operation:

Scan-To-Copy



The original document is scanned and directly transmitted to a selected output device. All Windows printer drivers and the direct transmission of raster data to TIFF-supporting output devices are supported. Furthermore, scanning results may be transmitted directly to the LT WDV Plot Manager.

Scan-To-File



The original document is scanned and saved as file. For saving raster data, various data formats are available. See also Section Data Formats.



Both Modes of Operation may be carried out in [Automatic Operation](#). In said automatic operation the scan process is triggered by inserting the Document into the paper feed of the scanner. Thereby it is possible, to realize a continuous work process. The user needs not to carry out any action at the user interface of the program during the time he inserts documents into the Scanner.

## Installation

Installation is to be made exclusively by means of the installation CD-ROM being part of the scope of supply. For this purpose place the data carrier into your CD-ROM drive.

The installation program starts automatically. If the Autostart function on your PC is switched off, you start the program INSTALL.EXE by means of the MS Explorer by a double click on the respective file entry in the main directory of the CD.

Please first install the IMAGE Manager program and successively CONTEX Additional. The WDV Scan Pro Program is a constituent part of said software.

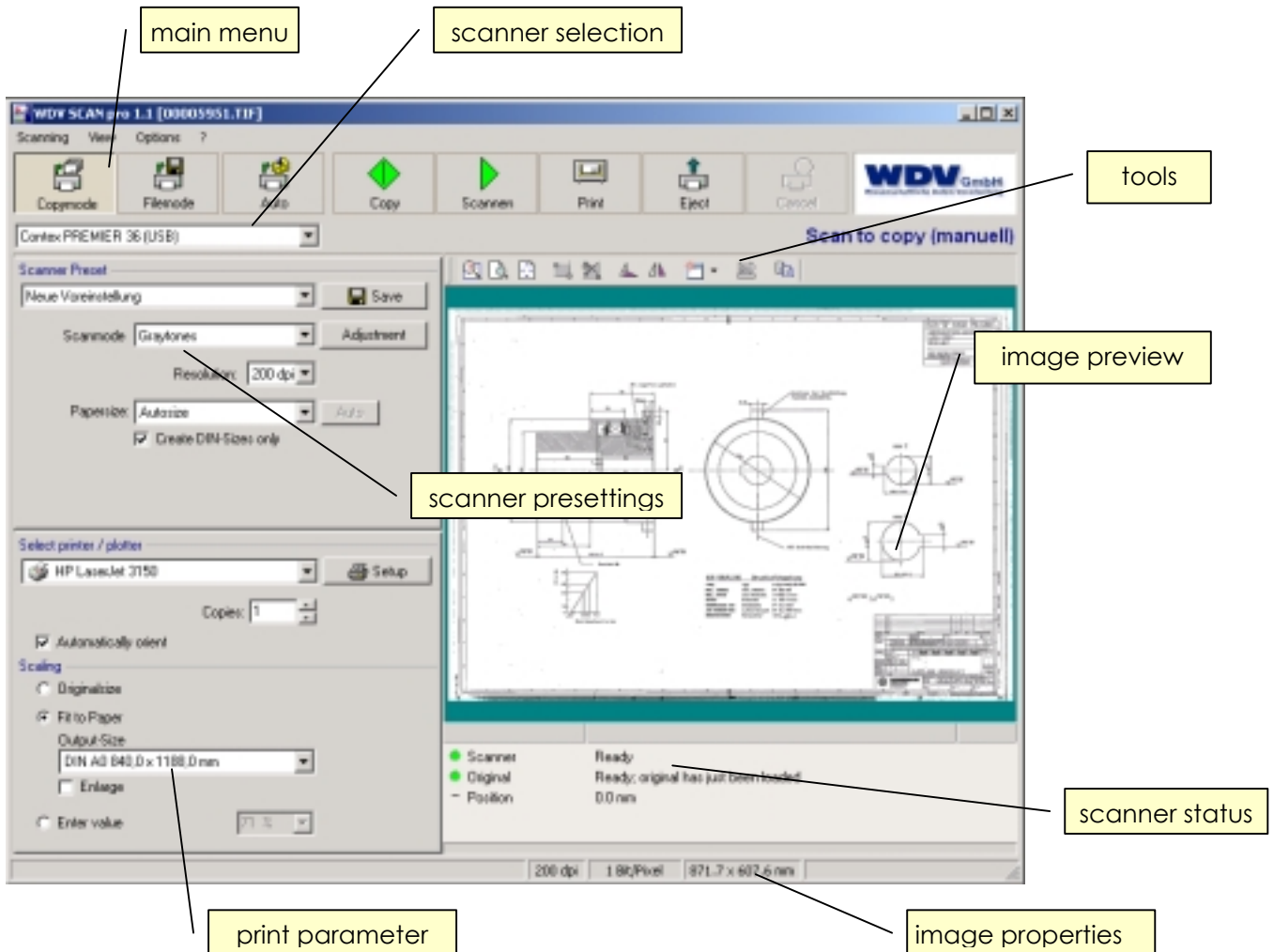
Follow the instructions of the program during the installation.

Note: In protected systems you will require the approval of a local administrator for the installation of the Software.

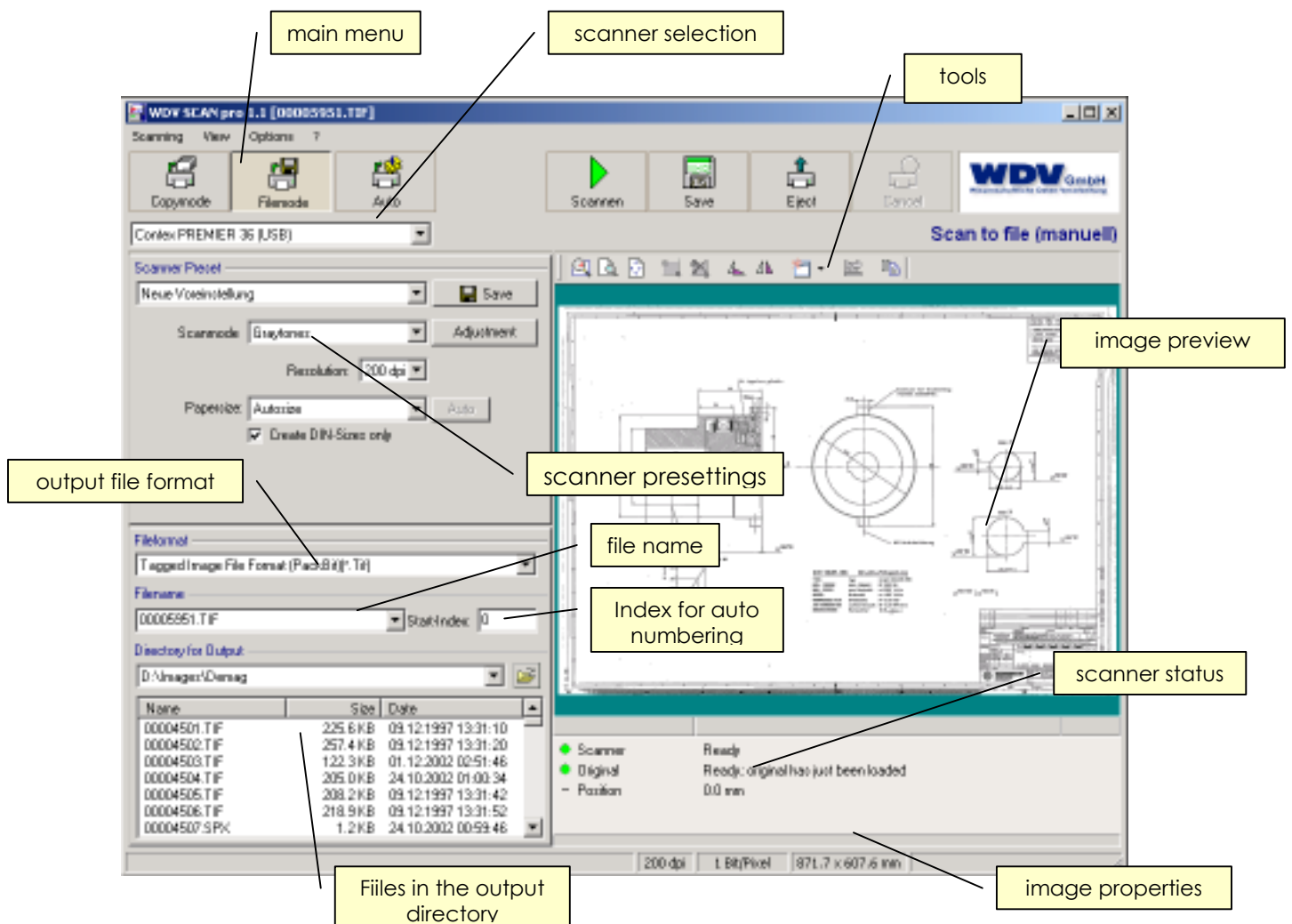
## User Interface

The user interface and handling of the program is adapted to MS Windows Standard in appearance and functionality. The program functions and controls adapt to the used scanner type and operating mode.

### Copy Mode



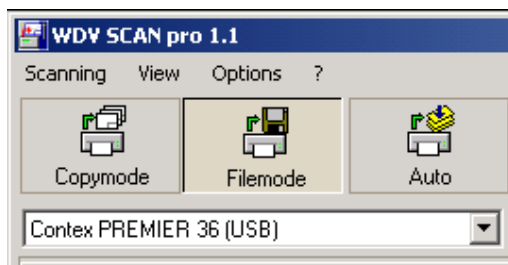
## Data Mode



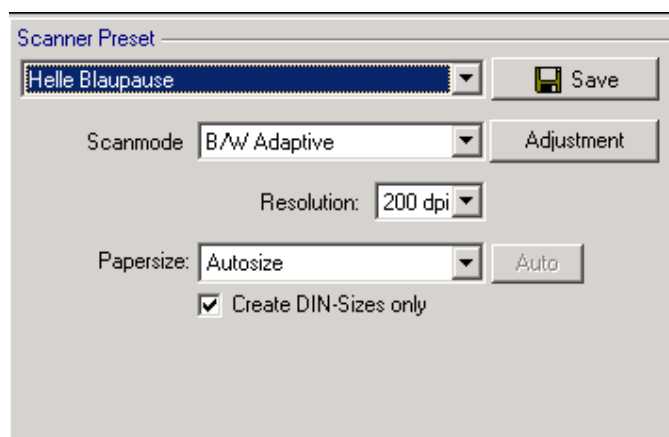
### Selection of Scanner

After program start, all compatible scanners in your system are searched for and are indicated in the list of available scanners.

Now you can select the scanner which you want to use.



### Scanner presetting



### Scan Mode

Selection of the Scan Mode sets the scanner mode of operation.

There are specific settings for each scan mode. For changing said parameters press the <Einstellungen> (Setting) button after you have selected the scan mode.

Here you can select the following modes of operation.

| Mode of Operation | Description    | Specific Settings                             |
|-------------------|----------------|-----------------------------------------------|
| B/W Threshold     | 1 bit B/W Mode | Threshold value<br>Despeckle                  |
| BW Adaptive       | 1 bit B/W Mode | Adaptive Level<br>Focussing<br>Soft-focussing |
| B/W Adaptive Gray | 1 bit B/W Mode | Adaptive Level<br>Focussing<br>Soft-focussing |

| Mode of Operation                              | Description          | Specific Settings                                                                   |
|------------------------------------------------|----------------------|-------------------------------------------------------------------------------------|
| B/W Adaptive Photo                             | 1bit B/W Mode        | Adaptive Level<br>Focussing<br>Soft-focussing                                       |
| B/W Copy Normal                                | 1bit B/W Mode        | Adaptive Level<br>Focussing<br>Soft-focussing                                       |
| B/W Copy Adaptive                              | 1bit B/W Mode        | Adaptive Level<br>Focussing<br>Soft-focussing                                       |
| B/W Adaptive with<br>Background<br>Suppression | 1bit B/W Mode        | Adaptive Level<br>Focussing<br>Soft-focussing<br>Level of Background<br>Suppression |
| Graytones                                      | 8bit Gray Level Mode | Focussing<br>Soft-focussing<br>Brightness<br>Contrast                               |
| Color                                          | 24bit Color Mode     | Focussing<br>Soft-focussing<br>Brightness<br>Contrast                               |

|       |                                                                  |
|-------|------------------------------------------------------------------|
| Note: | Available scanner parameters are depending on the scanner model. |
|-------|------------------------------------------------------------------|

### Paper format

There you will find a list of the usual paper formats. If you select a format, this must be consistent with the format of the original document. The selection of the paper format determines the window in which the scanner acquires the image data.

Place the original document always centered into the paper tray of the scanner.

### Automatic format Recognition

The program provides an automatic recognition of the original size. If the <automatic> paper format is selected, the scanner will always carry out first a test scan in order to sample the borders of the original document.

The recognition is based upon the recognition of Black/White portions of the original paper. That means that the scanning area is determined according to the graphic. The results may differ depending on the quality of the original document.

The automatic format recognition does not require a centered feed of the paper original.

With the option <produce DIN Formats only> the bitmap which is produced out of the automatic format recognition is enlarged by the dimensions which represent the next mating DIN format. That means, even though a graphic has a small Black/White portion only, the automatic format recognition would produce this portion of the image only from the surrounding rectangle of the recognized pixels. If this effect is not wanted this option should be enabled.

Note: If the automatic format recognition frequently recognizes paper formats which are larger than the original document, the scanner needs being cleaned i.a.w. the maintenance instructions. Impurities at the paper feed or at the background of the scanner may produce errors in the recognition of the size of the original document.

### Precision

There the resolution precision of the scanner camera can be set. The measuring unit of the precision is Dots per Inch (dpi). The larger the selected value is, the higher is the edge resolution of the cutting result.

Usual results are 200-400 dpi for B/W Modes and 150-200 dpi in Gray Scale or 24bit Color modes.

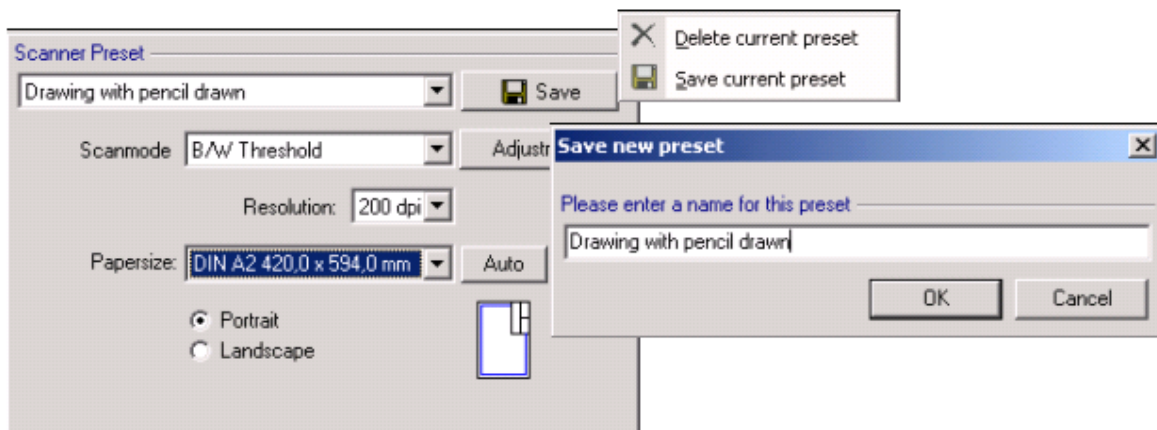
Note: Selection of precision has a considerable influence on memory space requirement for image data. This is true particularly in the Gray Scale and 24bit Color scan modes.

### Saving of Defaults

The system is delivered with default parameters for typical original document qualities.

- Original document with good quality
- Bright original
- Light blue print
- Dark blue print
- Bright sepia copy (brown)
- Dark sepia copy (brown)
- Gray transparent original

You may add further defaults by selecting the entry <New Presetting> in the list of presets. After you have adapted the respective parameters please press the <saving> button. Enter an optional name for that presetting. When you leave this dialog by pressing the <OK> button, the data are saved and added to the default list.



## **Copy mode / Scan To Copy**

### Select Plotter / Printer

Possible output devices are:

All MS Windows supported printers

All TIFF-supporting output equipment which are defined in the system. See also Section Set Plotter

### Number of Copies

Enter here the number of copies you want to print. Possible values are between 1 and 99 copies.

### Automatic Orientation

If this Option is selected, the graphic is printed in the same output orientation as the paper. That means, a drawing in landscape format is printed in landscape format on the paper.

If this option is not selected, the output direction can be made as preset.

### Scaling

- |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Original size       | The document is put out without scaling on the paper. Sections of the image which are larger than the largest possible paper format are cut off.                                                                                                                                                                                                                                                                                                                |
| Adapt to paper size | <p>The document is scaled so that it is printed on the selected paper format in the best possible form.</p> <p>Enlarge:</p> <p>If this option is selected any documents which are smaller than the selected format will be enlarged as preset. If this option is not selected (Standard Setting) smaller formats are automatically printed with the scaling factor 100%.</p> <p>Plotting with automatic selection of rollers selects the respective roller.</p> |
| Enter value         | You may preset a value for scaling. Range of values is between 10 and 999 %.                                                                                                                                                                                                                                                                                                                                                                                    |

## File Mode / Scan To File

### Data Format

Set the wanted data format. Possible values and their use see in section Data Formats.

### File Name

Enter here the name of the file in which the data are to be stored. A file enlargement is not necessary thereto.

Files may automatically be numbered. In order to preset the number in the file name, insert one or several \$ signs. The numbering is then carried out at the position of such dummies. If the number of dummies is longer than the number of figures of the numbering, some are replaced by leading zeros.

### Starting Index

Starting index presets by what number the automatic numbering is to begin with.

Example:

|                  |   |                   |
|------------------|---|-------------------|
| Image_\$\$\$arch | → | Image_005arch.tif |
| Document         | → | Document.tif      |
| 409\$\$\$67      | → | 40900567.tif      |

### Directory for Output

Select here the directory in which the newly generated files are to be stored.

The contents of the directory is indicated in the list.

If you select a file, a context menu is activated which you may open activating the right key of your pointer device (mouse). You may display the document directly in the preview window, respectively erase the selected file.

| Name         | Size     | Date                |
|--------------|----------|---------------------|
| 00004501.TIF | 225.6 KB | 09.12.1997 13:31:10 |
| 00004502.TIF | 257.4 KB | 09.12.1997 13:31:20 |
| 00004503.TIF | 122.3 KB | 01.12.2002 02:51:46 |
| 00004504.TIF | 205.0 KB | 24.10.2002 01:00:34 |
| 00004505.TIF | 208.2 KB | 09.12.1997 13:31:42 |
| 00004506.TIF | 218.9 KB | 09.12.1997 13:31:52 |
| 00004507.SPX | 1.2 KB   | 09.12.1997 13:32:02 |
| 00004507.TIF | 231.0 KB | 09.12.1997 13:32:12 |
| 00004508.SPX | 1.2 KB   | 09.12.1997 13:32:22 |
| 00004508.TIF | 66.4 KB  | 09.12.1997 13:32:32 |
| 00004509.TIF | 83.6 KB  | 09.12.1997 13:32:42 |
| 00004510.TIF | 134.6 KB | 09.12.1997 13:32:52 |

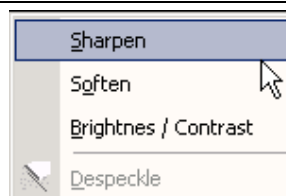
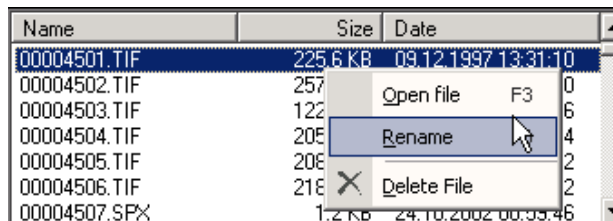
Note:

If you erase a file by means of that function, said file is erased in any case. You **cannot** restore it by means of the MS/Windows Waste Basket Function.

## Preview Function and Tools for Post-Processing

By means of the switch strip on top of the preview window, various manipulations of the image preview or post-processing of the scanning results may be realized.

| Switch                                                                              | Function                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Zoom, after you have pressed this button, draw a rectangle, while pressing the left mouse key, into the preview area. Subsequently the selected image section is enlarged displayed.                                                                                                                                                                 |
|    | Fit graphic into the borders of the preview window                                                                                                                                                                                                                                                                                                   |
|    | <p>Represent the graphic with an enlargement factor of 1:1. That means, one picture element of the graphic corresponds to one picture element on the screen.</p> <p>In order to be able to better navigate in the image preview, this function shows a Pan Window. While pressing the mouse key push the image section into the wanted position.</p> |
|    | Mirrors the graphic about the vertical axis                                                                                                                                                                                                                                                                                                          |
|  | Right turn of the graphic by 90°                                                                                                                                                                                                                                                                                                                     |
|  | Creation of a scan mask. See also section scanning of Image Section                                                                                                                                                                                                                                                                                  |
|  | Removes scan mask. See also section Scanning of Image Section                                                                                                                                                                                                                                                                                        |
|  | Clean. By this function single image dots and scatterings are removed.                                                                                                                                                                                                                                                                               |
|  | <p>Activating this switch opens the processing menu. You will find there further functions for processing the graphic. See also section Processing Menu.</p>                                                                                                                                                                                         |
|  | This switch hands over the actual graphic to the Image-Manager. This button is available only if the Image-Manager Program is started.                                                                                                                                                                                                               |
|  | In order to copy the actual graphic or the marked image section of a graphic into the clipboard of the operating system please activate this button. Thereafter you can use the graphic with the function <Insert> in every Windows application which can process image data.                                                                        |



## Scanning

### Copy an Original Drawing

In order to produce copies of a paper original document you proceed as follows:

- Disable the automatic mode of operation, in case this is enabled.
- Place your paper original document into the document feed of the scanner. Push the document uniformly up to the paper stop. The scanner draws in the document into the start position.
- Select <Scan-To-Copy> operating mode.
- Set scanning mode or select a preset mode in accordance with the quality of your original document.
- Set the wanted precision. Follow instructions given in section Precision.
- Set paper format or select automatic recognition of format size.
- Activate <Start> button and wait until the scanning process is completed. You can see the scanned image in the preview window.
- You now have the possibility to see the scan result with the preview functions and, if required, to make quality improvements. You furthermore have the possibility to repeat the scan process with other presettings. It is not required to place the document once more into the document feed.
- Select an output device and set the numbers of copies wanted and the parameters for the output device.
- The <Settings> button enables the standard dialog for the respective printer driver.
- Pressing the <Print> button starts the paper output.

### Producing a Scan File

- In order to produce a file with the image information of the Paper document, proceed as follows:
- Disable the automatic mode of operation, in case this is enabled.
- Place your paper original document into the document feed of the scanner. Push the document uniformly up to the paper stop. The scanner draws in the document into the start position.
- Select <Scan-To-File> operating mode.
- Set scanning mode or select a preset mode in accordance with the quality of your original document.
- Set the wanted precision. Follow instructions given in section Precision.
- Set paper format or select automatic recognition of format size.
- Activate <Start> button and wait until the scanning process is completed. You can see the scanned image in the preview window.
- You now have the possibility to see the scan result with the preview functions and, if required, to make quality improvements. You furthermore have the possibility to repeat the scan process with other presettings. It is not required to place the document once more into the document feed.

- Select the data format. Further information as to the possible file formats you will find in the section Data formats.
- State the file name under which the file is to be saved.
- Set the directory, on which the file is to be stored.
- The <Store> button generates the file in accordance with the settings. If there is a file bearing the same name, you will be asked whether you want to overwrite that file.
- If you use TIFF-based data formats, you have an additional possibility of appending the actual file in the form of a sequential page to the already present file. On this way, simple multi-page TIFF files may be generated.

### Scanning in Automatic Operation

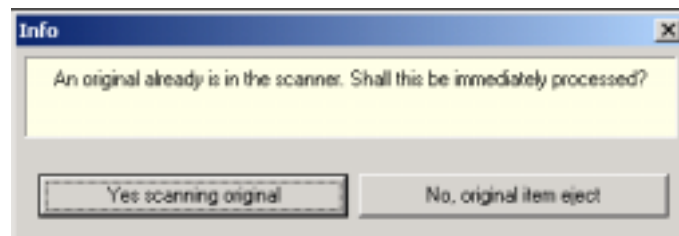
The automatic operation is provided for processing of a larger number of documents. You may scan documents in sequential order without being compelled to make inputs into the program.

Furthermore, you may use this modus if occasionally copies are produced. In such cases, the user is only bound to place his original paper into the scanner and the copy is directly produced without him being required to make entries into the program. For such case let the automatic copying mode simply remain enabled.

Both operating modes may be carried out in the automatic operation. As distinguished from the manual operating modes, you must set the parameters for the scanner and the output prior to the start of the process.

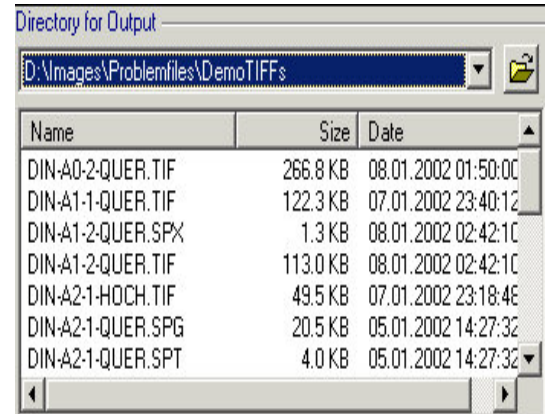
Activate the <Auto> button. If you activate the button again, the automatic operating mode is left.

If there is an original document in the scanner document feed, you will be asked if said document is to be scanned or said document is to be thrown out. If you decide for throwing out you will be asked which direction of throwing out you prefer.



In automatic operation, the following dialog is always opened:

Here is registered which documents were processed and where to the output was made. You may export the bookkeeping data for a session. The data format for the export is a MS-Office compatible data format. Please use the <Export>switch for the export function. See also Section Bookkeeping.



The scan process is triggered in that mode by inserting the original drawing. After scanning the sheet, the scan result in accordance with the operating mode is either output by the selected printer or as file.

#### Scan Image Section

If you want to scan a partial section of an original paper please proceed as follows:

Disable the automatic mode of operation, in case this is enabled.

Place your original paper into the document feed of the scanner. Push the document uniformly up to the paper stop. The scanner draws in the document into the start position.

Select the operating mode.

Set scanning mode or select a preset mode in accordance with the quality of your document.

Set the wanted precision. Follow instructions given in section Precision.

Set paper format or select automatic recognition of format size.

Activate <Start> button and wait until the scanning process is completed. You can see the scanned image in the preview window.

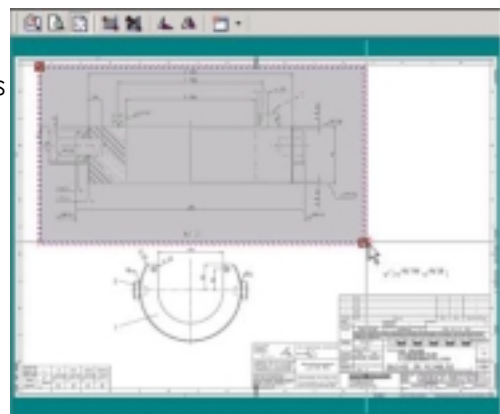
Activate <Create Mask> button. 

Draw a rectangle into the preview area, which presents the wanted image section. You may modify said mask later by clicking at the corner points or by pushing.

Start the scan process anew. If a mask is set, the gray represented area is scanned only.

Store the file or print the graphic data.

Note: If the original is removed from the feed of the scanner, also the mask is erased.



## Process Menu

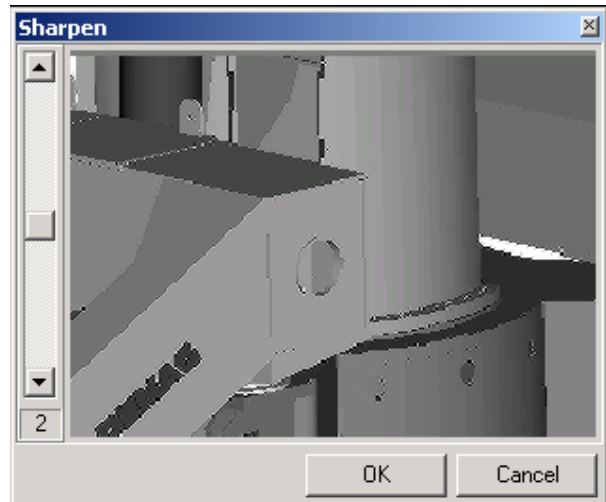
### Modify Definition

#### Sharpen

By means of this function, the contour definition of an image can be improved. You see the effects of changing this parameter on the graphic, observing the preview image.

If you leave this dialog by pressing the <OK> key, this setting is used for the entire scanned picture.

This function is not provided for B/W graphics.

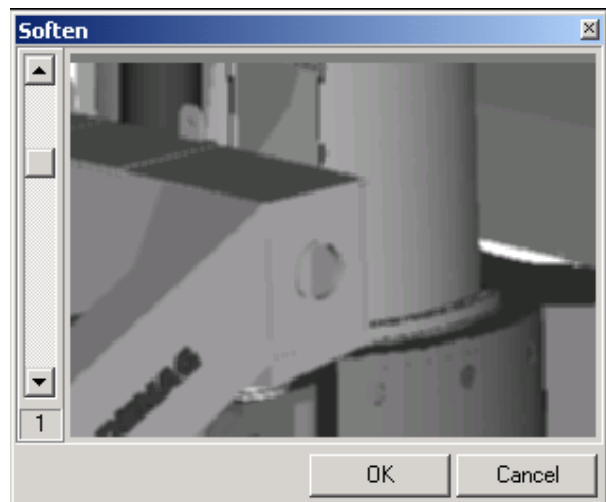


#### Soft focussing

By means of said function, the contours of an image can be softer focussed. You may see in the preview what effects this parameter will have upon the graphic.

If you leave this dialog by pressing the <OK> key, this setting will be used for the entire scanned image.

This function is not to be used for B/W-Graphics.

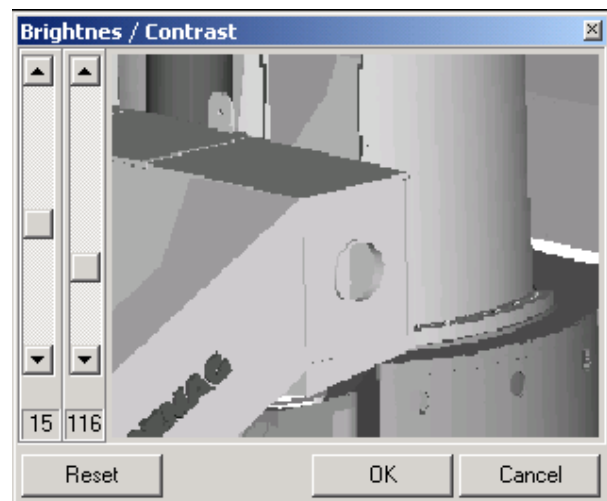


#### Brightness / Contrast

By means of that function, the brightness and the contrast of the graphic can be changed.

If you leave this dialog by pressing the <OK> key, this setting will be used for the entire scanned image.

This function is not to be used for B/W-Graphics.

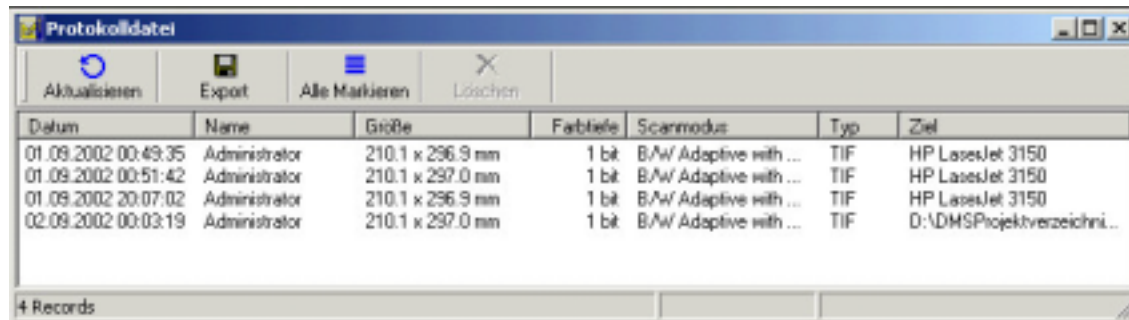


## Bookkeeping

### <Extras><Protocol>

The scanner activities are always registered and stored in a journal file. That means, all documents which run completely through the scan process, are registered. Such data may be exported for further evaluation. The data format which is generated thereby, is an ASCII file which can directly be read with Microsoft Excel.

Note: Please activate the <Update> button directly after the opening of the dialog.



The screenshot shows a window titled 'Protokolldatei' with a toolbar containing 'Aktualisieren', 'Export', 'Alle Markieren', and 'Löschen'. Below the toolbar is a table with the following data:

| Datum               | Name          | Größe            | Farbtiefe | Scanmodus             | Typ | Ziel                      |
|---------------------|---------------|------------------|-----------|-----------------------|-----|---------------------------|
| 01.09.2002 00:49:35 | Administrator | 210.1 x 296.9 mm | 1 bit     | B/W Adaptive with ... | TIF | HP LaserJet 3150          |
| 01.09.2002 00:51:42 | Administrator | 210.1 x 297.0 mm | 1 bit     | B/W Adaptive with ... | TIF | HP LaserJet 3150          |
| 01.09.2002 20:07:02 | Administrator | 210.1 x 296.9 mm | 1 bit     | B/W Adaptive with ... | TIF | HP LaserJet 3150          |
| 02.09.2002 00:03:19 | Administrator | 210.1 x 297.0 mm | 1 bit     | B/W Adaptive with ... | TIF | D:\DMSPjektverzeichnis... |

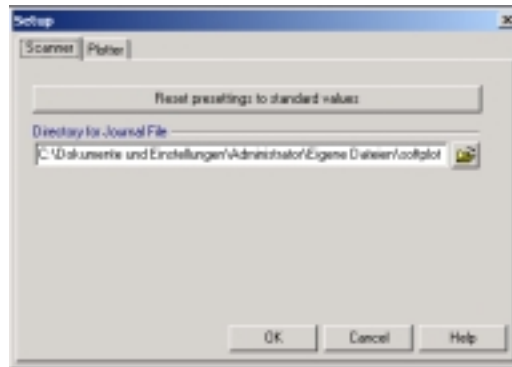
At the bottom left of the table area, it says '4 Records'.

In this context please see also section [Environment](#).

## Settings

The user interface can be represented in several languages. The product is delivered in the languages German/English as standard. You can chose between those languages. In the extended version of the program the additional languages Dutch, French, Danish, Swedish, Spanish and Italian are available. These language versions are optional.

[<Options><Setup>](#)



Reset presettings to standard values:

This function clears all user-defined scan modes and resets the standard modes to factory preset values.

[Directory for Journal File:](#)

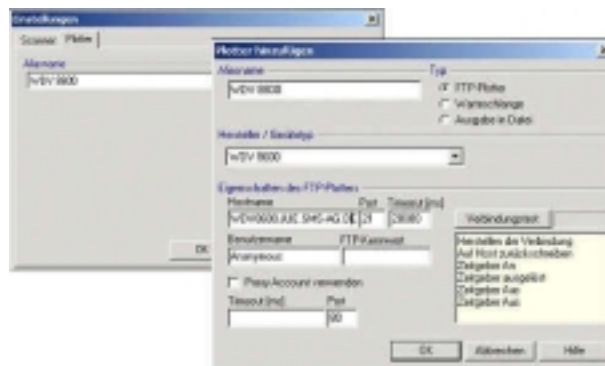
There you can set up the directory in which the data for the log are to be stored.

See here also section [Bookkeeping](#).

[Adjust Plotter](#)

[<Options><Setup><Plotter>](#)

The system offers the possibility of transmitting Tiff-files directly to the output devices which are able to process that data format directly. If you possess such devices such method of print outputting is preferable over the printout by Windows driver because same is considerably more efficient and faster.



By that dialog you will be able to set the parameters for the transfer of data.

The Register for the plotter definition file states where the data for your presettings are to be deposited. Here you can state a directory which is jointly used in the network. You thereby have

the possibility of making available the same settings to a plurality of users. In order to set up a new plotter please proceed as follows:

Activate the switch <Add on>

Enter a random name into the field <Name>, by which the plotter is to be identified in the system.

Select the type of the data transmission

FTP Plotter: Data are transferred to the device via FTP (File Transfer Protocol). Make sure, that your plotter supports this protocol.

Queue: The data are transferred into a plotter queue on any server. You must state therefor the name of the queue. The queue must have a deallocation status.

Example: [\\Node\Plotter01](#)

In this example there is a queue with the deallocation name "Plotter01" on the Server Node, which is connected with your plotter. If there is no queue please install a plotter which points to your output device and deallocate this for your system. Please ask your system administrator, if required.

Output into File: If that type is selected the data can be spooled into the stated directory.

Select the producer of the output device

If your equipment is not directly supported. Please use the expression <No supported Plotter>. The TIFF data then will be transferred without additional parameters for the control of the plotter.

State the transfer parameters which are relevant for the type of the connection.

FTP Plotter: In the field <Remote Host> the network name or the IP address of the plotter can be entered.

Test the FTP connection, if required

The status of the connection test is displayed.

## Set Language

The user interface can be represented in several languages. The product is delivered in the languages German/English as standard. You can chose between those languages. In the extended version of the program the additional languages Dutch, French, Danish, Swedish, Spanish and Italian are available. These language versions are optional.

[<Options><Set Language>](#)



Select the wanted language and restart the program. From this moment the program is executed in the selected language.

## **Technical data**

### Scan Modes

- B/W Adaptive Threshold
- B/W Photo Mode
- B/W Adaptive with background suppression
- 8bit Gray-level scan
- 24bit Color scan

### Functions for Quality Improvement

- Scaleable Threshold
- Smoothing / soft focussing
- Brightness and contrast control
- Background suppression
- Automatic alignment
- Automatic format adaptation for DIN formats

### Performance

- In accordance with the performance of the connected scanner.

### Additional Functions

- Automatic recognition of original document size and position in paper tray
- Automatic orientation of paper position
- Integrated viewing function
- Direct adobe-PDF production
- Zoom function
- Stack scanning
- Adjustable scan area
- Storing of any number of presettings
- Plotter interface for TIFF Plotter (Direct-Plotting)
- Transfer of raster data to "WDV Plot Manager LT" or to the "Image-manager" raster performance software
- USB and SCSI supports
- Monitoring of scanner status
- Logging of scan activities (order entry)
- Multi-language user interface (English/German)

### Operating Systems

- MS WinNT40

- MS Win2000prof
- MS WindowsXP

#### Hardware Requirements

- Contest scanner with USB or SCSI Interface / Generation 4 to 6
- PC Systems on which the above operating systems are executable
- Processor: At least Pentium 3 recommended
- Store: Minimum 256 MB RAM, for large-format gray levels or color scans higher capacity respectively.

## Data Formats

For the filing of the raster files the following data formats are supported:

| Data format                              | Extension | Usage                                                                                                                                     |
|------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Tagged Image File<br>Format Group4       | TIF       | High-compressed data format, exclusively for B/W documents                                                                                |
| Tagged Image File<br>Format Group3       | TIF       | High-compressed data format, exclusively for B/W documents                                                                                |
| Tagged Image File<br>Format Packbits     | TIF       | Packed data format for all color depths up to 24 bit Color                                                                                |
| Tagged Image File<br>Format uncompressed | TIF       | Unpacked data format for all color depths up to 24 bit Color                                                                              |
| Cals-Raster                              | CAL       | High-compressed data format, exclusively for B/W documents                                                                                |
| Portable Network Graphics                | PNG       | Packed data format for all color depths up to 24 bit color, preferably for Internet usage                                                 |
| Microsoft Windows Bitmap                 | BMP       | Standard Windows Bitmap, non compressed                                                                                                   |
| JPEG File Interchange Format             | JPG       | Compressed data format for less qualitative requirements, preferably for Internet usage. For color and raster files with gray tones only. |
| Encapsulated PostScript                  | EPS       | Standard elementary format for transfer into PDF format. Exclusively for B/W documents.                                                   |
| PC Paintbrush File Format                | PCX       | Windows / MS Office compatible raster format.                                                                                             |